## Bioethics

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**AT THE MARGINS:** A Life in Biomedical Science, Faith, and Ethical Dilemmas by D. Gareth Jones. Eugene, OR: Resource Publications, 2022. 168 pages. Paperback; $22.30. ISBN: 9781666744712.

Picture this: a close friend tells you they are deeply struggling with a medical issue—for example, the use of *in vitro* fertilization, pre-implantation genetic diagnosis (PGD), vaccination, or medical treatments that may be based on using embryonic stem cells. They ask *your* advice and insight on the topic, specifically because you are a Christian. Should they use this treatment? Is it acceptable as a Christian to use it? How, then, do you respond? Would you be able to help them understand the benefits, challenges, and questions of these procedures? Would you be able to help them process the dilemma they face, both spiritually and medically?

*At the Margins* is a humble walk with a Christian who is also a scientist, who has served on ethical advisory committees, and who has walked through these biomedical discussions with fellow Christians. These discussions have involved and affected him personally, spiritually, and professionally. It is this integration that makes the book and its dialogue so valuable. Jones's life provides an example of how we can integrate spiritual direction and scientific knowledge as we navigate the ethical decisions within our own lives.

Jones begins his discussion by giving his testimony and faith journey. He grew up in England in a church-attending family, but his spiritual awakening occurred in college, over several years of searching. He learned early to engage in dialogue with those who think and believe very differently than he does, a skill which has become invaluable in his journey with biomedical ethics. As a young person, his spiritual journey developed alongside his fascination with science and the ability to ask questions. Two Bible verses have guided him spiritually. One is Luke 18:17: "Anyone who does not receive the kingdom of God as a little child will never enter it." For Jones, this verse encourages the pursuit of "openness, honesty, truthfulness, and uncomplicated inquisitiveness" (p. 8), which are also important traits for a scientist. The second verse is 1 Cor. 13:12: "For now we see in a mirror, dimly, but then we will see face-to-face. Now I know only in part; then I will know fully, even as I have been fully known." This verse encourages humility, because anything we know now, both scientifically and theologically, is limited in its scope—only eventually will we have a more full and complete explanation.

The author's journey in ethics began within his own profession of anatomy. Early in his career, he realized that some of the bodies used in the dissection lab were from unidentified, or unclaimed bodies. These individuals did not know their body would be used in this way, nor did they intentionally donate their bodies for the anatomy lab. To Jones this seemed an unethical use of these individuals' bodies since there was no consent given. His discussion on this topic includes the role of Christians to protect the vulnerable, the dispossessed, those without a voice. His objection to the use of unclaimed bodies for the anatomy lab was not initially greeted with enthusiasm, as it reduced the number of bodies available for dissection (the primary method of teaching anatomy at that time). Over time, however, adjustments in attitudes and cadaver procurement were made. For the author, such discussions are not merely academic topics; they influence his life and the way in which he interacts with others.

In chapters 3 and 4, he reflects on his personal experience with the Covid-19 pandemic. He talks about how to see God's presence in such a tragedy, and he explores the role of God's lament for people when disaster strikes. For Jones, exploring nature through the scientific method is one way "to be guided by Christ's overriding commandment to love God with all our being—heart, soul, mind, and strength—and to love our neighbor as ourselves" (Mark 12:29–30), and the pandemic provided opportunities to do both.

Jones sees medical science as one way to explore God's creation, to seek God's glory, and to help heal a broken world. He observes that our responses to pandemics, and to the risks and benefits of vaccines, are complex. He does not preach or advocate a specific position, yet he does talk about the necessity for science to educate our faith, and for our faith to guide our use of science. If love for neighbor supports only the use of donated bodies in the anatomy lab, then it may also include protecting from a pandemic those who are vulnerable, such as those with health problems, especially who are immunocompromised. Thus, God's provision of spiritual gifts could include the ability to heal others through the development of a vaccine that can help to heal those in need. He also gives a historical perspective on the use of vaccines and the fears, concerns, and objections of many to receiving them. From a historical perspective, it could be said that nothing we experienced in the Covid-19 pandemic was really new.

The use of technology in the development of biomedical tools to address disease continues in chapters 5, 6, and 7 as he discusses cystic fibrosis and the use of embryonic stem cells. Jones has a family connection to cystic fibrosis, so for him this is not an academic discussion from a distance. Knowing that this is personal gives added value to his discussion of new treatments that have greatly extended the lifespan of those affected. The spiritual and ethical bases of respect for life and when life begins, are also discussed, and the answers aren't always clear. One observation he makes is that if embryos and fetuses are considered untouchable (meaning that nothing may be permitted to be done that potentially risks their livelihood), then neither are we able to learn more to medically help them. Here Jones is not advocating the use of embryonic or fetal tissue in research—he is simply acknowledging that we may not be able to help if we are not able to study.

In chapter 8, Jones discusses the science and ethics of gender issues. He gives a sensitive overview of the science

behind sexual identity and sexual attraction and summarizes which traits seem to be genetically based, or inherent, and which traits are currently evidenced as being socially influenced. His overview is honest, that science may not be unbiased in its assessment or agenda, and it is part of our role to think carefully about the information we hear. Although not a theologian, he gives a gentle discussion of several interpretations of biblical themes including traditionalist and revisionist interpretations. The role of church community is also described, with both positive and negative examples.

In closing, Jones again revisits the spiritual and scientific themes that have guided his life. His focus is not on a specific theological interpretation, or any specific philosophy. In fact, he created a bioethics center at his university to further bioethical discussions with participation by those with broad backgrounds and perspectives. In many of his chapters, he presents multiple perspectives to emphasize that these are not simple topics with simple answers, yet within this complexity his goal is to help people develop a "compass" and "a set of guardrails" (p. 165) as they navigate ethical topics and decisions.

Jones ends the book with a discussion of those who are sidelined or marginalized by expressing their views, especially when they are not considered mainstream. If we cannot speak with each other on topics in which we disagree, it is easy to push people out of conversations, push them to the margins. He talks about how people with contradictory views are pushed out of jobs or positions, whether in churches, corporations, businesses, or governments. It is important to continue discussions, to learn to listen to each other, even when we disagree. He closes with his two favorite verses again (cited above—Luke 18:17 and 1 Cor. 13:2), which nurture in us the humility to remember that we know only a little, and remind us of the limitations of our knowledge.

This book is a thoughtful read, and helpful for the reader who wants to think more clearly about, and better articulate, one's stances on bioethical issues. It does not give easy answers, because there aren't any, for, in many cases, there are competing ethical challenges. Indeed, the reader may leave the book with more questions than answers. Yet, it is hopeful—that we can grow in our faith while listening to and supporting others in the midst of such complex issues.

*Reviewed by Kathleen Tallman, Associate Professor of Biological Sciences, Yavapai College.*

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**AS GODS: A Moral History of the Genetic Age** by Matthew Cobb. New York: Basic Books, 2022. 442 pages. Hardcover; $35.00. ISBN: 9781541602854.

It can sometimes be difficult to tell where science fiction ends and science begins when discussing developments in genetic engineering. Consider genetic manipulation of human embryos leading to heritable genetic changes in children, gene-drive-based disruption of whole ecosystems, and the creation of positive mutations in dangerous human pathogens. These are all experiments that have already been conducted. The children are born. The gene drives have been released. More virulent strains of deadly pathogens have been created.

In the introduction to *As Gods*, Matthew Cobb explains:

> My motivation in writing this book has been to explore my own fears about these three areas. Each of them worries me in different ways, but I recognize that many of my concerns are similar to those expressed by people faced with previous applications of genetic engineering, most of which turned out to be either exaggerated, or at least to be controllable by careful regulation and strict safety procedures. (p. 3)

*As Gods* recounts the major developments in the history of molecular biology, including the discovery of molecular tools (restriction enzymes, reverse transcriptase, etc.), the first recombination of bacterial and viral DNA, and the Asilomar Conference held to discuss the safety of recombinant DNA technologies.

Much of the first eleven chapters of the book covers the history of genetic engineering from the 1960s through the Covid pandemic. Attention is given in these chapters to the patenting and privatization of genetic products, the development of genetically modified foods, and attempts at gene therapy. In the second half of the book, Cobb dedicates space to the three concerns introduced at the start of this review. He offers two chapters (12 and 13) to the "botched experiment that mutated three healthy embryos" (p. 2) conducted by Dr. He Jiankui and one chapter each to the topics of "Ecocide" (chap. 14) via gene drives and "Weapons" (chap. 15) that result from mutating pathogens.

Throughout the book, Cobb recounts this history with a combination of keen historical investigation, personal narrative, and social commentary. Cobb has written other books of history (*Eleven Days in August* and *The Resistance: The French Fight Against the Nazis*) and other books on the history of science (*The Idea of the Brain: A History* and *The Egg and Sperm Race: The Seventeenth-Century Scientists Who Unravelled the Secrets of Sex, Life and Growth*). He is a skilled storyteller who has rigorously pursued the primary sources in order craft a narrative with characters, tension, and resolution.

But Cobb was himself present for some of these meetings and conferences. Entering the discipline in the late 1970s, he has been part of the community making these moral decisions and conducting the experiments. His own biological research involves a genetic investigation of the sense of smell in fruit flies. When he describes historical events to which he was not a personal witness, he often supplements the printed record with interviews of firsthand participants.

Throughout the book, Cobb continuously contextualizes the history he narrates within the broader culture that was shaping it. For example, in chapter 5, Cobb describes how popular culture directly affected the practice of science.

Harvard was considering plans to build a new genetic engineering lab. He writes,

> At the end of May 1976, there was a university-wide meeting to discuss the plans. This was attended by a Cambridge councilor, Barbara Ackermann, who just happened to have watched *The Andromeda Strain* on television the night before. *The Andromeda Strain* film she watched was based on the 1969 book by Michael Crichton that depicts a deadly outbreak of a novel pathogen. Alarmed by what she heard at Harvard, Ackermann raised the issue with fellow councilors. (p. 92)

The resulting delays to the building plans were so extensive that "by the time the building work was completed [the scientists were] able to do the experiments in ordinary laboratory space" (p. 97).

The author is not a passive narrator of the story. He has a clear perspective and is unafraid to share it. For example, in chapter 13, "Aftermath," when discussing people who support human embryo modification, Cobb writes,

> There is one gang of fantasists who mix cryptocurrency funding and transhumanist nonsense in a toxic, nauseating nightmare, claiming that they will use CRISPR germline editing to produce babies who will live to be "super-centenarians." (p. 274)

Throughout the book, Cobb's genuine concerns about advancements in genetic engineering are rooted in the same fear that has stalked the discipline since its inception: safety. Four times in this discipline, scientists have voluntarily paused their work and embraced a moratorium in order to develop means to conduct the research safely.

While the subtitle of the text describes the book as a "moral history," it offers more of a history of insufficient moral consideration regarding important moments in molecular biology. The field has been willing to consider how to progress safely, but there has been surprisingly little consideration of what experiments should not be done. As a book of history, it is not Cobb's responsibility to offer his readers a robust moral framework for evaluating advances in gene editing. Instead, the history he recounts illuminates the need for such a framework.

The striking title of the book comes from an essay by Steward Brand who said, "We are as gods and might as well get good at it" (p. 338). Cobb agrees, and adds, "In genetic terms at least, being a god is relatively straightforward these days; getting good at it is another matter" (p. 338). In recounting the moral history of this field, Cobb encourages us, the next generation of scientists taking up the discipline, to remember to consider why we do our experiments, not just how they are done. In the closing chapter, he implores us to remember that in genetic engineering, "we have a choice whether to employ it or not, whether to permit its development or not. Just because we *can* do something does not mean that we *should* [emphasis original]" (p. 362).

*Reviewed by Clayton Carlson, Professor of Biology and Chair of the Natural Sciences, Trinity Christian College, Palos Heights, IL 60463.*

## Evolutionary Theory

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**HIDDEN DEPTHS: The Origins of Human Connection** by Penny Spikins. York, UK: White Rose University Press, 2022. xiii + 456 pages. Paperback; £29.15. ISBN: 9781912482320. Electronic: Free under Creative Commons Attribution + Noncommercial 4.0 license, https://doi.org/10.22599/HiddenDepths.

In *Hidden Depths*, Penny Spikins explores the evolution of the positive emotional aspects of our humanity in the context of our relational connectedness with others. As an archaeologist, she documents the evolution of humans from the physical evidence found at archaeological sites, which she then relates to our modern behavior, to the behavior of hunter-gatherer cultures, and to past humanoids such as Neanderthals, as well as to the evolution of animals, of other primates, and of other social mammals such as dogs. By focusing on the evolution of positive emotions, for example, generosity, empathy, tolerance, and altruism, she gives the lie to Tennyson's description of nature as red in tooth and claw.

The book's layout is unusual: each chapter has its own abstract, summary, and reference list, somewhat like a series of journal articles put together into a volume; however the overarching work is coherent—the book builds its case in a logical and informative manner—and the issues are addressed well. The nine chapters are laid out in three parts: the first deals with the positive emotions within groups; the second addresses the benefits and costs of these positive emotions beyond immediate groups; and the last explores other potential human evolutionary pathways.

In Part 1, chapter 1, Spikins discusses the neurobiological basis for compassion and empathy, along with their evolutionary basis and advantage. Developing empathy in close-knit family groups leads to generosity and caring behavior. Human empathy is compared to empathic expression in primates, and to convergent evolution in other social species. Next, Spikins provides the archaeological evidence that human ancestors cared for their wounded and ill (as documented in the bones uncovered today). I found this second chapter provided essential insight into humanity's deep history with ideas I have not seen elsewhere. Then, in the third chapter, the impact of human interdependence on these positive emotions is reviewed, leading to a discussion of the importance of trust. These three chapters are based on early hominoid evidence, when we started diverging from other primates. The first part of the book thus covers our history from about two million to 300,000 years ago, when modern humans began to emerge.

Part 2 discusses the importance of positive human emotions in interactions with larger communities and how we moved from seeing others as a threat to seeing others as an opportunity for benefit, leading to increases in tolerance. Chapter 4 discusses the physiological changes that led to fewer avoidance behaviors and more approach behaviors.

As an example, the physical evidence that artifacts were traded across large distances is fascinating, implying that local groups had interactions with many distant people; such interactions first require approach behaviors. In chapter 5, Spikins argues that along with approach behaviors comes an increase in tolerance, also called "self-domestication." While largely beneficial, self-domestication also has a cost, in that it causes vulnerabilities such as specific emotional disorders when our needs for affiliation are not met. These unmet needs can lead to attachment to physical artifacts that possess no obvious function, but such attachment serves as a compensatory process (a modern example being teddy bears). These nonfunctional objects started to appear in the archaeological record about 45,000 years ago. In the next chapter, the parallel development of positive relationships with dogs (descended from wild wolves) suggests that dogs have undergone similar changes in attachment behaviors, becoming more tolerant and caring toward humans. For humans, forming bonds to dogs provides another way for us to address our emotional vulnerabilities.

In Part 3, Spikins lays out the argument that humanity's evolutionary history took one of several possible alternate pathways. She supports this point by comparing the emotional and social differences between chimpanzees and bonobos, as well as between wolves and dogs. In the last chapter, Neanderthals are discussed, and proposed as one of those alternate pathways; however, among Neanderthals, their emotional and social interactions were limited to small, closely related groups and so did not extend to larger communities. The author suggests that the more limited, close-knit community relationships in Neanderthals ultimately proved less successful than the broader social and emotional relationships of our direct ancestors.

The integration of biological evidence from other species, primates, and wolves, along with the neurobiology of our emotions and the integration of the hard evidence from archaeology, makes this book a worthy companion for other books that have explored our evolutionary history. Its emphasis on the benefits and costs of positive emotions such as empathy, compassion, and tolerance stands in helpful contrast to similar books that pay more attention to aggression and testosterone.

Like many books that cover related material (such as Frans de Waal's *Mama's Last Hug* and Robert M. Sapolsky's *Behave: The Biology of Humans at Our Best and Worst*), this volume was written without any mention of the Christian faith or even religion. Individuals looking for threads of how our faith fits into our evolutionary history will need to look elsewhere (such as in Chris Barrigar's essay book review in the March 2024 issue of this journal).

While I found this volume an enlightening and valuable read, the book raised some issues for my Christian faith. One common motif in Christianity is that we are the crown of creation—a view which is challenged by the evolutionary story described in this book. For instance, human history is a sequence of adaptations and changes that often appear randomly. As well, our relations with other humanoids, and the discovery that some of our genes come from Neanderthals, suggest that we are a complex branch in the tree of life, as indicated by Darwin. An evolutionary account is also consistent with flaws in our design, such as lower back problems that many of us deal with! Each of these raises a challenge to the motif that humanity is the crown of creation.

This is an excellent up-to-date review of the archaeological evidence of how human evolution developed the connections that underlie our behavior. While unfortunate in its lack of attention to influences of religion, this book makes a valuable addition to our evolutionary history. Particularly important is the integration of the hard evidence from archeological findings with the soft evidence relevant to the emergence of positive emotions, including discussion of emotions in the wider animal world. This volume provides much important material that needs to be considered when integrating faith with science.

*Reviewed by Roelof Eikelboom, Emeritus Professor of Psychology, Wilfrid Laurier University, Waterloo, ON.*

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**ON THE (DIVINE) ORIGIN OF OUR SPECIES** by Darrel R. Falk. Eugene, OR: Cascade, 2023. 263 pages. Paperback; $36.00. ISBN: 9781666757019.

Did the evolution of *Homo sapiens* depend causally on divine activity? This is the daring question (!) which seasoned biologist, former president of BioLogos, and influential Christian scholar Darrel R. Falk explores in his most recent book. Arguing in favor of divine activity, Falk is careful to avoid both crudely interventionist and passively deistic frameworks. Instead, Falk seeks to honor and maintain the integrity and consistency of the created order (the regularity of its laws and processes) as well as a traditional Christian view of God's providence in which God is personally present and active within the cosmos, intimately related to his creatures and promoting their flourishing.

Falk's proposal focuses specifically on the unique quality of the social nature of human beings. Grounded biologically and emerging from a complex evolutionary history, which Falk narrates in fascinating detail, this unique relational nature enables human awareness of other minds (i.e., they can recognize, envision, and empathize with the consciousness, thoughts, intentions, and motivations of others) and grants them unparalleled capacities for communication and cooperation toward common goals. It also enables the kind of spiritual awareness that makes possible a relationship with the divine Spirit.

Falk continually draws his scientific narrative into creative dialogue with the Christian story, pointing out deep resonances and specific points of connection along the way. Christian scripture and tradition bear witness to a God whose fundamental nature is Love. This God lovingly and non-coercively draws and encourages his human creatures toward the qualities and dispositions of the divine

Spirit (e.g., love, joy, peace, patience, goodness, kindness, faithfulness, gentleness, self-control). God has been doing this from the beginning, before early hominins had any conscious awareness of spiritual things. Such qualities and dispositions would have had a beneficial effect on the flourishing of human communities and the survival success of their offspring (at least amongst those individuals and communities responding to the divine initiative; Falk concedes that many would not respond to the divine). In turn, offspring formed in this way would receive encouragement from their communities to seek the divine. It is then in this nuanced sense that human evolution unfolded within the broader context of a divine-human partnership.

It's important to note that Falk's love-response narrative offers theological perspective and meaning particularly to one central feature of human evolution: the emergence of the cooperative (and relational) human mindset. It is not centrally focused on questions related to theodicy or to the evil that pervades human history. Aggression and violence within creation are assumed; what Falk finds interesting is how and why human beings can rise above evil and embrace love and virtue. This said, Falk devotes much of chapter 6 to questions related to theodicy and to human evil and suffering.

At first glance, it might be tempting to charge Falk with identifying a gap in scientific knowledge (i.e., of human consciousness, relationality, agency, and love) and then smuggling God into that gap. But Falk is not seeking to present God as a substitute for scientific explanation; rather, he offers sustained theological reflection on the findings of mainstream science (i.e., paleoanthropology, archaeology, genetics, biology, and psychology/social psychology), thus providing an additional, compatible yet also more comprehensive level of description. As he puts it, "The task of Christian scholars is to build a bridge from what science has discovered so that those findings can be placed within the context of the broader reality revealed through the life, death, and resurrection of Jesus" (p. 121).

Chapter 1 puts forth a basic theoretical framework for the interdisciplinary discussion that follows, treating topics such as the nature and limits of science (including a critique of *scientism*), the philosophical coherence and rationality of theism, and the reasonableness of central Christian beliefs. Falk leans on leading biblical, historical, and philosophical scholars to discuss the soundness of "the God hypothesis" (Keith Ward), the resurrection (N. T. Wright) and divine identity of Jesus (Larry Hurtado), and the reliability of the gospels (Richard Baukham).

Chapter 2 focuses on the evolution of the genus *Homo*, from the first known appearance of hominins (fossils date to 6 million years ago) to the appearance (2.8 mya) and then predominance (1.9 mya) of *Homo*. A crucial part of this story is how a duplicated copy of what Falk calls "Gene3" (ARHGAP11a), taking place 5.2 mya, enabled larger brain sizes and increased sensitivity to the minds of others. (Falk notes that all humans and Neanderthals, but not the great apes, possessed this duplicated gene.)

Chapter 3 outlines the evolution of our species *Homo sapiens*, with particular attention given to recent studies identifying specific qualities that enabled *sapiens* to outlive and replace all other *Homo* species, namely friendliness, joint intentionality, and a cooperative mindset and behavior. Theologically, Falk notes that such beings would be increasingly equipped to interact with a divine Being whose nature is Love. He suggests a helpful analogy: just as child development is linked with an increasing awareness of the minds and needs of others, as well as an emerging capacity for spiritual awareness, so our species likely developed in parallel fashion as it evolved and matured. Falk then speculates that an emerging spiritual consciousness within early human communities (specifically of the triune God who is Love, though not necessarily known by name) would likely have had a favorable result, by encouraging (selecting) the aforementioned qualities. Given the phenomenon known as the "Baldwin effect," in which learned behavior and culture (e.g., use of tools, technology, etc.) can have evolutionary effects, Falk writes,

> If the cohesiveness of a well-functioning community was tightened because members were responding more sensitively to God's presence urging them towards goodness and love, it seems reasonable that such increased cohesiveness would alter the dynamic of the evolutionary process. (p. 90)

Chapter 4 wrestles with the negative psychological implications of the emerging theory of mind amongst early *Homo sapiens*. While this enabled an empathic and cooperative mindset, it would also bring about an acute self-awareness of mortality and suffering. Contrary to Varki and Brower's suggestion that this awareness gave rise to a propensity for what they call "reality denial" (i.e., spirituality and religion), Falk offers the theological suggestion that "humans were able to thrive as they developed a full theory of mind despite becoming aware of their own mortality, … [because] they were also becoming cognizant of the existence of the eternal" (p. 120). Neither interpretive option is simply a deduction from "the facts"; each makes inferences in light of prior philosophical presuppositions held on other grounds.

Chapter 5 further explores the cooperative mindset, likening its emergence to what we know about the domestication of animals from experimental research. Falk draws parallels between the various physical, cognitive, and psychological changes that occur in animal domestication, and similar changes that occurred in human evolution. While he admits that the parallels are not perfect, the comparison is nevertheless suggestive: "What *is* clear is that the *sapiens* genetic makeup has undergone a dramatic set of changes [similar to domestication] that have led to vastly improved communication skills and cooperation," as well as to decreased aggressive and destructive traits and behaviors (p. 152).

In the final two chapters, Falk turns his attention more fully to theological concerns, addressing questions and challenges related to divine providence in chapter 6 (including

questions related to theodicy and to the pervasiveness of human evil and suffering throughout history) and sketching out a biblical-theological narrative of creation to eschaton in chapter 7. Falk's theological reflections in these chapters are compelling and thought provoking. A minor point of criticism is that Falk's comments on the need for an original community of goodness and harmony (see pp. 226–32) are less compelling and seem to be based more on theological assumptions (i.e., a historical creation-fall-redemption paradigm) than the kind of robust evidence supporting the rest of the book's scientific and theological claims. The Old Testament (OT) itself does not draw the inferences and conclusions that later theological thinkers made about "creation and fall." Such theologizing traces back (indirectly, via Augustine and other patristic writers) to the Apostle Paul. In turn, Paul reads the Genesis creation texts, not simply directly, but rather through the interpretive concerns, questions, and assumptions of Second Temple Writings (such as 2 Baruch and 4 Ezra, which, unlike the OT, *do* draw creative theological conclusions from the Adam and Eve story in Genesis)—writings which Paul engages selectively. This complicates attempts to align modern scientific accounts of human origins with a historical reading of the Genesis creation narratives.

Overall, Falk's proposal is fascinating and illuminating, both scientifically and theologically. His thesis is convincing and important: it is fair and balanced, engages reliable scholarship, demonstrates nuanced interdisciplinary integration, and paints a compelling and even beautiful picture of the origins and emergence of the wondrous beings God created in his image. The book is well researched and deeply learned, valuable to students in both science and theology, yet accessible to a wider, thoughtful readership. I commend it enthusiastically and hope it stimulates much reflection and discussion.

*Reviewed by Patrick S. Franklin, Associate Professor of Theology at Tyndale Seminary, Toronto, ON.*

## Psychology

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**HOW DO WE KNOW OURSELVES? Curiosities and Marvels of the Human Mind** by David G. Myers. New York: Farrar, Straus, and Giroux, 2022. 272 pages. Hardcover; $15.59. ISBN: 9780374601959.

David G. Myers is the author of numerous textbooks in the field of social psychology; his bibliography also includes several books which combine psychological perspectives and religious belief. Further, Myers has authored several books intended for a more general audience. *How Do We Know Ourselves?* would fall into this latter category.

Divided into three parts: Who Am I?, Who Are We?, and What in the World?, Myers's book is a compendium of forty short essay reflections on the human condition from a social psychology perspective. In Part I, chapters one through twelve introduce the reader to a vast array of psychological insight pertaining to the self. These reflections build a repertoire of concepts which draw upon research in the discipline. Myers's introduction and use of data and findings are adeptly incorporated into the narrative, and the many examples used in this section and throughout the book illustrate the points raised succinctly and with significant effect. It is in this first section that the book's subtitle is most clearly applicable, *Curiosities and Marvels of the Human Mind*. Myers takes us on a journey of self-discovery as he engages us to consider such concepts as implicit egotism (chap. 1), blindsight and implicit memory (chap. 5), intuition (chap. 7), hindsight bias (chap. 9), and self-esteem (chap. 12), to name but a few.

In Part II, chapters thirteen through twenty-seven, the focus shifts from the psychology of the "self" to that of our relationships. The opening chapter of Part II, "The Science of Humility" (chap. 13), is cleverly book-ended with its closing chapter essay, "Narcissism: The Grandiose Self" (chap. 27). Between humility and narcissism, we are treated to reflections on psychological research concerning birth order (chap. 14), how the mind processes traumatic events (chap. 16), group polarization (chap. 18), the social facilitation phenomenon (chap. 24), and the psychology of friendships (chaps. 25 and 26). Again, to name just a few.

For the last section Part III, chapters twenty-eight through forty, Myers broadens the focus of his social psychological scope to consider a wider social context. Starting with the perennial question of "How Nature and Nurture Form Us" (chap. 28), he leads us through discussion on the fear of dying (chap. 32), immigration and intergroup contact (chap. 33), a chapter titled "How Politics Changes Politicians" (chap. 35), confirmation bias (chap. 36), and "phubbing," which was a term I had never heard before, but have certainly experienced; it means that our personal interactions are distracted by a constant need to check our smartphone devices (chap. 37). Myers concludes in the last chapter, "Do Replication Failures Discredit Psychological Science?" (chap. 40), with a defense of scientific inquiry and a word of caution to an overindulged skepticism which can lead to out-and-out cynicism.

At the point of purchasing this book to review, I allowed myself a cursory glance at some of the reviews submitted by other customers. I noticed, to my initial surprise, several comments alluding negatively to Myers's occasional inclusion and social psychological analysis of current issues in the political arena. Upon reading the book, I certainly could identify those essays which, for some, may have been a cause of irritation, but this observation highlights a critical point and speaks to the relevance of this book. The science of psychology has much to contribute to our understanding of contemporary issues in the modern world. For application to current events and in his use of contemporary real-life examples, Myers has an embarrassment of riches to draw on. The collective experience of the COVID epidemic, social media use, and indeed, the US political landscape are all grist for the mill; these are necessary social issues that warrant social scientific scrutiny. *How Do We Know*

*Ourselves? Curiosities and Marvels of the Human Mind* provides this. In Myers's open, honest, and self-effacing style, he is able to illuminate hard data and scientific inquiry; he allows us to consider questions of real human and social significance from a disciplinary perspective.

The text is thoughtfully crafted and has an easy, accessible narrative flow, which introduces the reader to significant social psychological research, concepts, and theory. The style is conversational, and the author has chosen not to include exhaustive citations in the body of the text; there is, however, an extremely useful Notes section at the back of the book which provides detailed reference information to all sources used. This inclusion is particularly welcome given the short length of each of the separate chapters that manage, nonetheless, to introduce many pertinent sources that call for further exploration after piquing one's interest. Although *How Do We Know Ourselves?* is accessible and conversational, one would be mistaken to think that it lacks a certain depth. David G. Myers offers in this book the culmination of five decades of working in the field of social psychology; it is insightful, apposite, at times moving, and profound.

For people of faith, there is much to appreciate and reflect upon in *How Do We Know Ourselves?* Myers's own religious frame of reference is evident in subtle ways throughout the text. He seamlessly introduces, for example, the theological insights of such figures as C.S. Lewis (chaps. 13, 19, 21, 35), Reinhold Niebuhr (chap. 12), Pope Francis (chap. 26), and Saint Paul the Apostle (chap. 36). Myers does this, not in a didactic or preachy manner, but in ways that gently elevate the significance of faith for human flourishing and ethical mindfulness in our relationships.

*How Do We Know Ourselves? Curiosities and Marvels of the Human Mind* will appeal to a wide audience. For the casual reader interested in gaining social psychological insight on a range of pertinent subjects, this book will serve as a useful primer and steppingstone to the discipline. For educators wanting to add a text to an existing reading list which would serve to provide compelling examples of how course material could be applied, this book would be a useful addition. Lastly, Myers's work could serve as a guide to one's own self-reflection; on our own understanding of ourselves as we navigate the world.

*Reviewed by Malcolm Gold, PhD, Adjunct Professor of Sociology, Messiah University, Mechanicsburg, PA 17055.*

## TECHNOLOGY

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**SEX, TECH, AND FAITH: Ethics for a Digital Age** by Kate Ott. Grand Rapids, MI: Eerdmans, 2022. 207 pages. Paperback; $22.99. ISBN: 9780802878465.

I have to admit that I approached the task of reviewing Kate Ott's latest book *Sex, Tech, and Faith: Ethics for a Digital Age* with a certain amount of trepidation. As an engineer by training and a faculty member at a Christian university by experience, I have some confidence in my ability to evaluate technology developments from a Christian perspective. However, I can claim very little expertise in the scientific analysis or ethical evaluation of human sexual behavior (beyond my own personal experience of being married for almost 35 years). As the product of a traditional Christian upbringing in which sex was rarely discussed openly, I admit a certain amount of squeamishness (although I hope not prudishness) in addressing the subject in the public sphere. The controversies in the church surrounding issues of human sexuality add additional complexity to this topic.

Ultimately, the courage to overcome these concerns stems from agreement with the author about the value of bringing these topics out into the open, as well as from the author's candid invitation to open dialogue. Ott's book-cover promise of "a values-based, shame-free, pleasure-positive discussion of Christian sexual ethics in response to a range of pressing issues in the digital age" is compelling. I suspect some Christians might be unaware of what's out there in the digital realm that could nourish or pervert our sexual desires. On the other hand, it's clear from the research presented in this book that many readers might be engaging with some of the digital topics and technologies uncritically, and in ways that are antithetical to Christian commitments.

The introduction sets the stage by noting the need for better understanding in two areas which might in the past have been viewed as non-overlapping: sexuality and digital literacy. Ott is aiming for a more nuanced understanding and integration of both. The approach to sexual ethics promoted in the book recognizes that, although Christians have traditionally focused their attention on sexual behaviors, relationships and values should also be centered as inputs in sexual decision making. Ott presents a list of values that attempt to capture the holistic aspects of human sexuality and provide guidance toward sexual flourishing (as opposed to focusing on boundaries). The goal to live out the call to love our neighbors and ourselves in the sexual realm is captured in the concept of "erotic attunement," which consists of an attentiveness to our sexual desires, the capabilities of our bodies, and the needs of others to cultivate healthy intimate relationships. With respect to digital literacy, the author emphasizes that experiences online and in the virtual world are still embodied experiences. This is a helpful corrective to the common assumption that interactions with software involve only our minds.

The book includes five chapters, each of which focuses on a particular sex-related digital technology topic. In each of these chapters, readers will find examples of available apps and products, along with analyses of some of the benefits and dangers associated with adoption of these technologies at the personal and societal level. Ott also provides some concrete case studies that help to illuminate the questions and assumptions surrounding sex-tech use.

Chapter 1 focuses on digital pornography. Two key effects of digital technology advances related to online

viewing of sexual activity are highlighted: (1) the availability of increasingly realistic and explicit depictions, and (2) the increasing ease of anonymous viewing. While some Christians might argue that depictions of nudity or eroticism can express appreciation of the beauty of God's creation, the digital experience tends to promote consumption, rather than appreciation. Despite reporting results from research studies that clearly identify the tendency of online pornography use to contribute to compulsivity and sexual dysfunction, Ott concludes that "online pornography use can have positive and negative effects on our sexual embodiment" (p. 34). She includes as a positive the potential for pornography viewers to educate themselves about sexuality and promote creativity (part of the pursuit of erotic attunement). While the author emphasizes here and in other sections of the book the potential for use of digital technology to shape us in ways that are not always easy to discern, I'm not certain that she takes this potential seriously enough in making recommendations. As an engineer who has been trained to identify and manage risks, I wonder if the value of avoiding harm (to individuals and society) has been weighted appropriately in the overall evaluation.

The second chapter considers the world of online matchmaking apps. Although many believers already use these tools to find partners and might view them as innocuous, the author points out the problems with the criteria and algorithms used to sort and match people. The standards of beauty and status markers that are promoted by online dating sites may be biased against minorities. Here, Ott describes the goal of forming a lifetime marriage partnership as a "myth" that is generally not in alignment with the values that contribute to erotic attunement. She also points out that using these apps for casual "hookups" is unlikely to promote erotic attunement.

Chapter 3 lays out the dangers of digital technologies that enable individuals to threaten others and invade their privacy. Ott is correct to point out in this chapter the ways that some aspects of Christian theology and practice have been used in the past to justify intimate violence and relationship abuse. Believers should be encouraged to increase their awareness of the potential for abuse of power in the digital realm and commit to promoting privacy protections and advocating for victims of online bullying and stalking.

The fourth chapter explores sex in the virtual world. The author describes examples of online universes and suggests that our avatars in these digital domains might be ethically used for exploration of sexual identity as long as the values of love and honesty are prioritized in these interactions. She can foresee a time when virtual reality will allow humans to interact in ever more "realistic" ways with others and with artificially intelligent entities in these constructed worlds.

In chapter 5, the analysis of technologically mediated sexual activities is extended to human interactions with robots. Ott sees robot companionship as potentially having positive influences on sexual health for some people. I would propose that the extent to which we might consider robots as participants in human sexual activities depends on whether we categorize them as tools (just more-sophisticated sex toys) or as potentially sentient persons. Either way, believers who situate sexual activity within a normative framework that directs it toward a lifelong committed relationship between two consenting human beings will be far less accepting than Ott is in this chapter. It seems inevitable that sex robots will be designed and made available to the public, and while Ott argues that this technology could be designed to encourage the development of Christian virtues in its users, I suspect most Christians will remain unconvinced.

In the end, reaction to the author's perspectives on sex-tech will depend strongly on the reader's prior personal experience and understanding of biblical norms for sex and marriage. Those who have struggled with gender identity and stereotypes, same sex attraction, and involuntary singleness, as well as those for whom the effort of trying to conform to overly constrictive expectations around sexual activity has been damaging to their mental health, will certainly be open to the progressive values championed in the book. On the other hand, those who hold that sex is intended only in the context of a lifelong covenantal marriage will be resistant to many ideas in this book. I did not find the tone of the book to be particularly conducive for convincing "traditional" Christians to be more open. Although Ott's stated goal is to avoid shaming and to honor a range of perspectives, she applies that goal unequally. She seems to assume that any Christian understanding of sexual ethics that attempts to set boundaries must be directly opposed to erotic attunement and be motivated by the desire to control the behavior of others.

Read this book to expand your horizons and stimulate reflection—both on the place of sexuality in our Christian walk and on the risks and opportunities for integrating technology into that sphere of human flourishing. But keep in mind that, ultimately, the only way to banish shame, particularly around our tech-enabled sexual behaviors, is not to banish all boundaries, but to discern God's will for this area of life and to be reminded that our Savior Jesus Christ died so that we all might be considered blameless for the things we get wrong.

*Reviewed by Gayle Ermer, Department Chair and Professor of Engineering at Calvin University, Grand Rapids, MI 49546.*

## Theology

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**THE BEGINNING AND END OF ALL THINGS: A Biblical Theology of Creation and New Creation** by Edward W. Klink III. Downers Grove, IL: IVP Academic, 2023. 208 pages, including discussion questions and indices. Paperback; $24.00. ISBN: 9780830855223.

Whereas many people tend to associate the doctrine of creation with the origins of the world, Edward Klink is con-

cerned to form a theology of creation that envelops all of scripture. Klink is senior pastor of Hope Church, Roscoe, IL, and formerly on the faculty of Talbot School of Theology, Biola University.

Throughout the introduction and ten chapters of the book, Klink presents an insightful biblical theology of creation with suggestions to engage nature, culture, and life. In the introduction, he emphasizes that he does not want to dwell on the debates about the first six days of creation; instead, he wants to show that the whole Bible tells the story of creation and that this story is at the core of the gospel itself.

In chapter 1, "Creation's Covenant," Klink emphasizes Genesis 1–2 as the foundation of the rest of the biblical story and its message. Creation is designed to be the temple of God, and God has made a covenantal claim on his creation, with humanity assigned to be the prophets, priests, and kings of creation.

"Creation's Curse," the second chapter, discusses the theological meaning of Genesis 3. It reveals the cause and fact of the human fallen condition as well as God's gracious provision of the sacrifice of animals for clothing in Genesis 3:21.

Chapter 3, "Creation's Confusion," begins with St. Augustine's *The City of God*, from which Klink points to Abraham as the founder of the city of God and to Cain as the founder of the city of humanity. Humanity loved themselves and not the Creator, and so placed its trust in human achievement and effort, rather than in God. Surprisingly, in this chapter Klink did not comment on the significance of Noah's Flood.

New Creation is especially emphasized in chapter 4, "Creation's Country." God begins the new creation in one person, Abraham, to whom God says, "In you shall all the families of the earth be blessed." Klink designates Abraham as the second Adam because the redemptive new work was through Abraham, and his descendants are the new humanity (p. 73). Klink's interpretation of Abraham as the second Adam does not preempt the way in which Jesus serves as the second Adam according to the Apostle Paul.

In chapter 5, "Creation's Cry," Klink once again employs the Adam motif, this time identifying the Jewish people as an interim Adam. They served as God's prophets, priests, and kings in the Old Testament (OT) period (p. 84), but they failed the assignment, as indicated in Isaiah 43. Then at the end of the OT period, the prophets cried out to the Lord for a new work of God. Abraham and the Jewish people are an interim Adam in the sense that their Adam-derived roles of prophets, priests, and kings were replaced by Jesus and the church.

The next chapter, "Creation's Christ," has two main sections: Jesus, the revelation of God, is the purpose for creation; he is the Gardener (so Mary Magdalen thought) in "the second garden" (John 19:41, at his resurrection). Klink says the plotline of God's creation can be stated as the story of three gardens: the first garden at Eden, the second garden at Easter, and the third garden in Revelation 21–22. Following his commentary on the Gospel of John, Klink identifies Jesus as the cosmic temple of God and the revealer of the physical design of creation.

Chapter 7, "Creation's Cross," explains that Jesus is the inauguration of the new creation, and the new life in the Pauline second Adam (Jesus) is God's provision. Then follows, chapter 8, on the church—"Creation's Congregation." Klink describes the church as the true Adamic humanity and descendants of the second Adam. She is also the temple of God in Christ.

Chapter 9, "Creation's Commission," contends that for humans to bear the image of God, and to be fully human, they must be Christ-centered. In an interesting perspective, the Great Commission of Mathew 28 is interpreted as being given for the cultivation of creation. The tenth chapter, "Creation's Consummation," concludes with the new creation, which is the re-creation of all things. In particular, the last two chapters of Revelation reveal the glorious consummation of God's creation project.

In the Conclusion, Klink offers pastoral reflections. He intends the book to correct the truncated and deficient views of the doctrine of creation that are commonly found today, and to emphasize that the end of all things is a new creation. In Klink's view, the concept of a new creation has wide implications, and should influence our spiritual life, the Christian life, our view of the earth, and culture.

Each chapter ends with pastoral insight, practical application, and biblical encouragement for readers to live as God's people of the new creation. The author's ability to develop new connections of theological significance is fully displayed in this volume, particularly through his commentary on the Gospel of John. On the other hand, Klink's interpretations of the biblical events sometimes appear puzzling, such as interpreting Abraham as the second Adam, and the Jewish people as the interim Adam. This kind of unusual interpretation is not new with Klink, however, as it appears part of a recent trend of interpreting many OT persons and events as types of Christ (see, e.g., James Hamilton Jr., *Typology: Understanding the Bible's Promise-Shaped Patterns*). In his grand narrative, Klink does not comment on Noah's Flood, nor the final cosmic cataclysm (2 Peter 3:10; Mark 13:24–25; Rev. 6:12–14). In tracing the theme of creation and new creation throughout the Bible, the book fulfills the purpose of the Essential Studies in Biblical Theology series, which is to describe the grand storyline of the Bible. This volume can serve well the needs of beginning students of theology, church leaders, pastors, and laypeople.

*Reviewed by T. Timothy Chen, PhD, Adjunct Professor, Chinese Studies Program, Southwestern Baptist Theological Seminary, Fort Worth, TX 76115.*